Department of Defense
Individual's Briefing

SMALLPOX VACCINATION PROGRAM

7 July 04

Threat

Smallpox would disrupt military missions, because it is contagious and deadly

- **Smallpox is a contagious disease that spreads from one person to another**
- **A smallpox outbreak would significantly affect military readiness**
- **Before smallpox was eradicated, it killed many millions of people over hundreds of years**
- **Terrorists or governments hostile to US may have or could obtain smallpox (variola) virus**

Smallpox Disease

- **Disease Progression:**
  - From exposure and symptoms usually takes 7 to 17 days
  - People become contagious a day or t before rash appears
  - Characteristic rash—deep, tense blis by day 2 of rash
  - Rash forms round, deep pustules tha dry out as scabs around day 9
  - Scabs fall off later, leaving scars
- **Risk of Death:**
  - Overall, about 30% of unvaccinated people die
  - Risk of death higher among Infants, elderly, immunocompromised (> 40%)

Smallpox Vaccine

- **The vaccine is made from virus called *vaccinia***
  - A “pox”-type virus similar to smallpox
  - Cannot cause smallpox
- **The vaccine helps body develop immunity to variola virus, the virus that causes smallpox**
- **Vaccine used for Service Members passes all tests required by Food and Drug Administration (FDA)**
- **Smallpox vaccine was first vaccine ever (1796) and has been used successfully for over 200 years**

Vaccine Effectiveness

Smallpox vaccine prevents smallpox, but requires very careful use

- **World Health Organization (WHO) used this vaccine to eradicate natural smallpox**
  - 95% of people are protected within 10 days
  - Solid protection lasts for 3 to 5 years
  - Partial protection lasts longer; revaccination needed
  - Can protect up to 3 days after exposure
  - Given 4-7 days after exposure, it offers some protection
- **Vaccine used round the world; in World War I & II etc.**

Exemptions to Vaccination

Some people should not get smallpox vaccine except under emergency situations. A Medical Exemption is given IF:

- **Personal <u>or</u> household contact:**
  - Immune system is not working fully (due to disease or medication)
  - Have or had eczema or atopic dermatitis
  - Have active skin diseases, such as:
    - Burns, psoriasis, contact dermatitis, chickenpox, shingles, impetigo, uncontrolled acne, until it clears up or is under control
  - Pregnant
  - Close contact with someone with the risk factors above ↑
- **Personal Only:**
  - Serious heart disease (such as angina, heart attack, congestive heart failure, other cardiac problem) or ≥ 3 risk factors
  - Use steroid eye drops or ointment or recovering from eye surgery
  - Breastfeeding
  - Allergic to smallpox vaccine or a component

Side Effects: Expected and Normal

- **A red blister that should turn white by 6 to 8 days after vaccination. Then it will turn into a scab.**
  - This shows successful vaccination.
  - If no white blister, may need another vaccination.
  - Most people experience normal, mild reactions,

See also:
www.bt.cdc.gov/training/smallpoxvaccine/reactions/normal.html#

- Itching
- Burning sensation
- Sore arm
- Fever
- Head & body ache
- Fatigue
- Swollen lymph nodes under arm

- **Symptoms usually peak 3 to 12 days after vaccination.**

Side Effects: Serious and Rare

- **Reactions that can be serious and need medical attention:**
  - Accidental spread of virus on yourself or to another person
  - Widespread vaccine rash where blisters break out away from vaccination site (“generalized vaccinia”)
  - Allergic rash after vaccination (“erythema multiforme”)
  - Inflammation of or around heart (“myo-pericarditis”), often beginning with chest pain or shortness of breath
- **Life-threatening reactions that need immediate attention:**
  - Widespread skin rashes in people such as those with eczema or atopic dermatitis (“eczema vaccinatum”)
  - Ongoing infection of skin with tissue destruction (“progressive vaccinia” or “vaccinia necrosum”)
  - Postvaccinal encephalitis, inflammation of the brain

Take Care of Your Vaccination Site

This woman touched her vaccination site, then touched her eye. She recovered with a scarred eyelid.

- **Use bandages**.
  - Change them every few days
  - Discard bandages in sealed or double plastic bags
  - Keep site dry
- **Wear sleeves to cover the site**.
  - Even at night, if you sleep with someone else
- **Wash your hands often!**

Be Careful Around Others

- **Until your scab falls off**, avoid spreading vaccine virus to close contacts, particularly with people exempted from getting vaccinated.

- **Do not share a bed, bunk, or cot with people who are exempted from vaccination**

- **Do not share clothes, towels, linen, or toiletries**
  - Launder clothing, towels, and sheets in hot water with detergent or bleach.

Pregnancy & Infant Care

- **Defer smallpox vaccination until after pregnancy:**
  - When pregnant women get smallpox vaccine, pregnancy usually goes well
  - In very rare cases, vaccine virus caused vaccinia infection of the fetus
- **Women: Avoid getting pregnant for 4 weeks** after smallpox vaccination
- **During screening, mention possibility of pregnancy**
- Take care to **prevent spread of vaccine virus to infants** up to 1 year of age. ALWAYS wash hands before handling infant (e.g., feeding, changing diapers)
- **Smallpox vaccine not recommended for nursing mother,** as it could put infant in close contact with mother's vaccination site
- If a pregnant woman is accidentally vaccinated contact: **Smallpox Vaccine in Pregnancy Registry**, 619.553.9255, Email: code25@nhrc.navy.mil

Adverse Event Reporting

- **Vaccine Adverse Event Reporting System (VAERS)**
  - FDA and CDC review 100% of adverse-event reports
- **DoD requires a VAERS Form submission for:**
  - Loss of duty 24 hours or longer (≥ 1 duty day)
  - Hospitalization
  - Suspected vaccine vial contamination
  - Auto-inoculation or contact vaccinia
- **Other submissions are encouraged**
- **Anyone can submit a VAERS Form!**
- **VAERS Forms may be obtained from:**
  - Your clinic, 1-800-822-7967, or www.vaers.org

Reserve Component Adverse-Events

- **Adverse events after DoD- or USCG-directed vaccinations are line-of-duty conditions**
- **Someone with an adverse event in a non-duty status possibly associated to any vaccination:**
  - Seek medical evaluation at a DoD, USCG, or civilian medical treatment facility, if necessary
  - Must report the event to your unit commander or designated representative as soon as possible
  - Consider VAERS submission
- **Commander will determine Line of Duty and/or Notice of Eligibility status, if required**

Help Us Use Smallpox Vaccine Safely

- Carefully read & complete screening form
- Contact family members who may know about your childhood history of recurrent rashes like eczema
- Talk to your close contacts and family members about smallpox vaccination and safety precautions
- Ask for assistance at any point, if needed by you or your close contacts or if you have safety concerns
- Take care of your vaccination site to minimize adverse events in you and others

Key Messages

1. Smallpox would disrupt military missions, because it is contagious and deadly
2. Smallpox vaccine prevents smallpox, but requires very careful use
3. Preserving the health and safety of our people are our top concerns
4. Smallpox protection helps our War on Terrorism: New threats require new measures of force protection

Information Sources

- **Chain of Command / Supervisors**
- **Military Vaccine (MILVAX) Agency**
  - Website: **www.smallpox.mil**
  - E-mail: **vaccines@amedd.army.mil**
  - Toll-Free: **877.GETVACC**
- **DoD Vaccine Clinical Call Center: 866.210.6469**
- **Centers for Disease Control and Prevention (CDC):**
  - Website: **www.bt.cdc.gov**
  - CDC National Immunization Hotline: **800.232.2522**
- **Walter Reed Vaccine Healthcare Center:**

202.782.0411 www.vhcinfo.org Askvhc@amedd.army.mil

- **Call your local Military Medical Treatment Facility (MTF) –OR– if Reserve Component seeking care at a civilian facility, contact Military Medical Support Office (MMSO) 888.647.6676**